

IN THE CLAIMS

1-24 (canceled)

25. (original) An RFID tag comprising:

a first transceiver arranged to transmit and receive first signals to and from a first reader; and,

a second transceiver arranged to transmit and receive second signals to and from a second reader.

26. (original) The RFID tag of claim 25

wherein the second signals are of a nature that excludes reception by the first reader, and wherein the first signals are of a nature that excludes reception by the second reader.

27. (original) The RFID tag of claim 25

wherein the first transceiver comprises a frequency agile transmitter and a direct sequence spread spectrum receiver.

28. (original) The RFID tag of claim 25

wherein the first transceiver comprises a long range RF transceiver, and wherein the second transceiver comprises a short range RF transceiver.

29. (original) The RFID tag of claim 28 wherein the first transceiver comprises a frequency agile transmitter and a direct sequence spread spectrum receiver.

30. (original) The RFID tag of claim 25 wherein the second transceiver comprises a hardwire interface.

31. (original) The RFID tag of claim 25 wherein the second transceiver comprises a magnetic interface.

32. (original) The RFID tag of claim 25 wherein the first transceiver comprises a duty cycled receiver and a transmitter.

33. (original) The RFID tag of claim 32 wherein the duty cycled receiver comprises a duty cycled direct sequence spread spectrum RF receiver, and wherein the transmitter comprises a frequency agile RF transmitter.

34. (original) The RFID tag of claim 25 wherein the first transceiver comprises a duty cycled receiver and a duty cycled transmitter.

35. (original) The RFID tag of claim 34 wherein the duty cycled receiver comprises a duty cycled direct sequence spread spectrum RF receiver, and wherein the duty cycled transmitter comprises a duty cycled frequency agile RF transmitter.

36. (original) The RFID tag of claim 25 wherein the first transceiver is arranged to transmit data in a time slot pseudorandomly selected by the RFID tag.

37. (original) A method of conserving battery power in an RFID tag having a battery, a receiver, and a transmitter, the method comprising:

duty cycling the receiver so that the receiver is turned on during ON times of duty cycles and so that the receiver is turned off during OFF times of the duty cycles;

during the ON times of the receiver, receiving a frequency from a tag reader; and,

transmitting data to the reader at the frequency.

38. (original) The method of claim 37 further comprising receiving a hop sequence during ON times, wherein the frequency is a constituent of the hop sequence.

39. (original) The method of claim 37 wherein the transmitting of data comprises transmitting the data in a time slot pseudorandomly selected by the RFID tag.

40. (original) The method of claim 37 wherein communications between the RFID tag and the tag reader are conducted within a message frame, wherein the message frame comprises a header and a time slot, wherein the header is transmitted by the tag reader and contains the frequency, wherein the time slot comprises a header portion and a data portion, wherein the header portion is transmitted by the tag reader and also contains the frequency, and wherein the transmitting of data comprises transmitting data from the RFID tag to the tag reader in the data portion of the time slot.

41. (original) The method of claim 37 wherein communications between the RFID tag and the tag reader are conducted within a message frame, wherein the message frame comprises a header and a time slot, wherein the header is transmitted by the tag reader and contains the frequency, and wherein the transmitting of data comprises transmitting data from the RFID tag to the tag reader in the time slot.

42. (original) The method of claim 37 wherein the receiver comprises a direct sequence spread spectrum RF receiver.

43. (original) The method of claim 42 wherein the transmitter comprises a frequency agile RF transmitter.

44. (original) An RFID tag comprising:
a transmitter arranged to transmit first data to a tag reader;
a receiver arranged to receive second data from the tag reader;
a battery;

a switch coupling the battery to the receiver;
and,

a controller arranged to operate the switch in a duty cycle such that power is provided by the battery to the receiver during ON times of the duty cycle and such that power from the battery to the receiver is interrupted during OFF times of the duty cycle.

45. (original) The RFID tag of claim 44 wherein the receiver comprises a direct sequence spread spectrum RF receiver.

46. (original) The RFID tag of claim 44 wherein the transmitter comprises a frequency agile RF transmitter.

47. (original) The RFID tag of claim 44 wherein the receiver comprises a direct sequence spread spectrum RF receiver, and wherein the transmitter comprises a frequency agile RF transmitter.

48. (original) The RFID tag of claim 47 wherein the frequency agile RF transmitter is the only transmitter of the RFID tag that transmits long range communications to the tag reader, and wherein the direct sequence spread spectrum RF receiver is the only receiver of the RFID tag that receives long range communications from the tag reader.

49. (original) The RFID tag of claim 47 wherein the direct sequence spread spectrum RF receiver receives a frequency in a hop sequence representing a current frequency state of the tag reader, and wherein the frequency agile RF transmitter transmits communications to the reader over the frequency.

50. (original) The RFID tag of claim 47 wherein the direct sequence spread spectrum RF receiver is arranged to receive state data indicating that the RFID tag is to operate in a beacon state, wherein the direct sequence spread spectrum RF receiver is arranged to receive state data indicating that the RFID tag is to operate in an active communication state, wherein the frequency agile RF transmitter is arranged to transmit self-originated messages when the direct sequence spread

spectrum RF receiver receives state data indicating that the RFID tag is to operate in the beacon state, and wherein the frequency agile RF transmitter is arranged to transmit interrogation replies when the direct sequence spread spectrum RF receiver receives state data indicating that the RFID tag is to operate in the active communication state.

51. (original) The RFID tag of claim 50 wherein the direct sequence spread spectrum RF receiver receives a frequency in a hop sequence representing a current frequency state of the tag reader, and wherein the frequency agile RF transmitter transmits communications to the tag reader over the frequency.

52. (original) An RFID tag comprising:
a transceiver arranged to transmit and receive first signals to and from a first reader; and,
a receiver arranged to receive second signals from a second reader and to activate the transceiver thereby causing the transceiver to transmit and receive the first signals to and from the first reader.

53. (previously presented) The RFID tag of claim 52 wherein the second signals are of a nature that excludes reception by the first reader, and wherein the first signals are of a nature that excludes reception by the second reader.

54. (previously presented) The RFID tag of claim 52 wherein the transceiver comprises a frequency agile transmitter and a direct sequence spread spectrum receiver.

55. (previously presented) The RFID tag of claim 52 wherein the transceiver comprises a long range RF transceiver, and wherein the receiver comprises a short range receiver.

56. (previously presented) The RFID tag of claim 55 wherein the transceiver comprises a frequency agile transmitter and a direct sequence spread spectrum receiver.

57. (previously presented) The RFID tag of claim 52 wherein the receiver comprises a hardwire interface.

58. (previously presented) The RFID tag of claim 52 wherein the receiver comprises a magnetic interface.

59. (previously presented) The RFID tag of claim 52 wherein the transceiver comprises a duty cycled receiver and a transmitter.

60. (previously presented) The RFID tag of claim 59 wherein the duty cycled receiver comprises a duty cycled direct sequence spread spectrum RF receiver, and wherein the transmitter comprises a frequency agile RF transmitter.

61. (previously presented) The RFID tag of claim 52 wherein the transceiver comprises a duty cycled receiver and a duty cycled transmitter.

62. (previously presented) The RFID tag of claim 61 wherein the duty cycled receiver comprises a duty cycled direct sequence spread spectrum RF receiver, and wherein the duty cycled transmitter comprises a duty cycled frequency agile RF transmitter.

63. (previously presented) The RFID tag of claim 52 wherein the transceiver is arranged to transmit data in a time slot pseudorandomly selected by the RFID tag.

64. (previously presented) An RFID tag comprising:

a transceiver arranged to transmit and receive first signals to and from a first reader; and,

a receiver arranged to receive second signals from a second reader and to activate the transceiver thereby causing the transceiver to transmit and receive the first signals to and from the first reader, wherein the receiver is incapable of receiving the first signals.

65. (previously presented) The RFID tag of claim 64 wherein the second signals are of a nature that excludes reception by the first reader, and wherein the first signals are of a nature that excludes reception by the second reader.

66. (previously presented) The RFID tag of claim 64 wherein the transceiver comprises a frequency agile transmitter and a direct sequence spread spectrum receiver.

67. (previously presented) The RFID tag of claim 64 wherein the transceiver comprises a long range RF transceiver, and wherein the receiver comprises a short range receiver.

68. (previously presented) The RFID tag of claim 67 wherein the transceiver comprises a frequency agile transmitter and a direct sequence spread spectrum receiver.

69. (previously presented) The RFID tag of claim 64 wherein the receiver comprises a hardwire interface.

70. (previously presented) The RFID tag of claim 64 wherein the receiver comprises a magnetic interface.

71. (previously presented) The RFID tag of claim 64 wherein the transceiver comprises a duty cycled receiver and a transmitter.

72. (previously presented) The RFID tag of claim 71 wherein the duty cycled receiver comprises a duty cycled direct sequence spread spectrum RF receiver, and wherein the transmitter comprises a frequency agile RF transmitter.

73. (previously presented) The RFID tag of claim 64 wherein the transceiver comprises a duty cycled receiver and a duty cycled transmitter.

74. (previously presented) The RFID tag of claim 73 wherein the duty cycled receiver comprises a duty cycled direct sequence spread spectrum RF receiver, and wherein the duty cycled transmitter comprises a duty cycled frequency agile RF transmitter.

75. (previously presented) The RFID tag of claim 64 wherein the transceiver is arranged to transmit data in a time slot pseudorandomly selected by the RFID tag.